



STRATEGIC FOUNDATION • BUSINESS VALUES • STANDARDS • KEY POLICY ISSUES

Tucson Water 2020 Strategic Plan

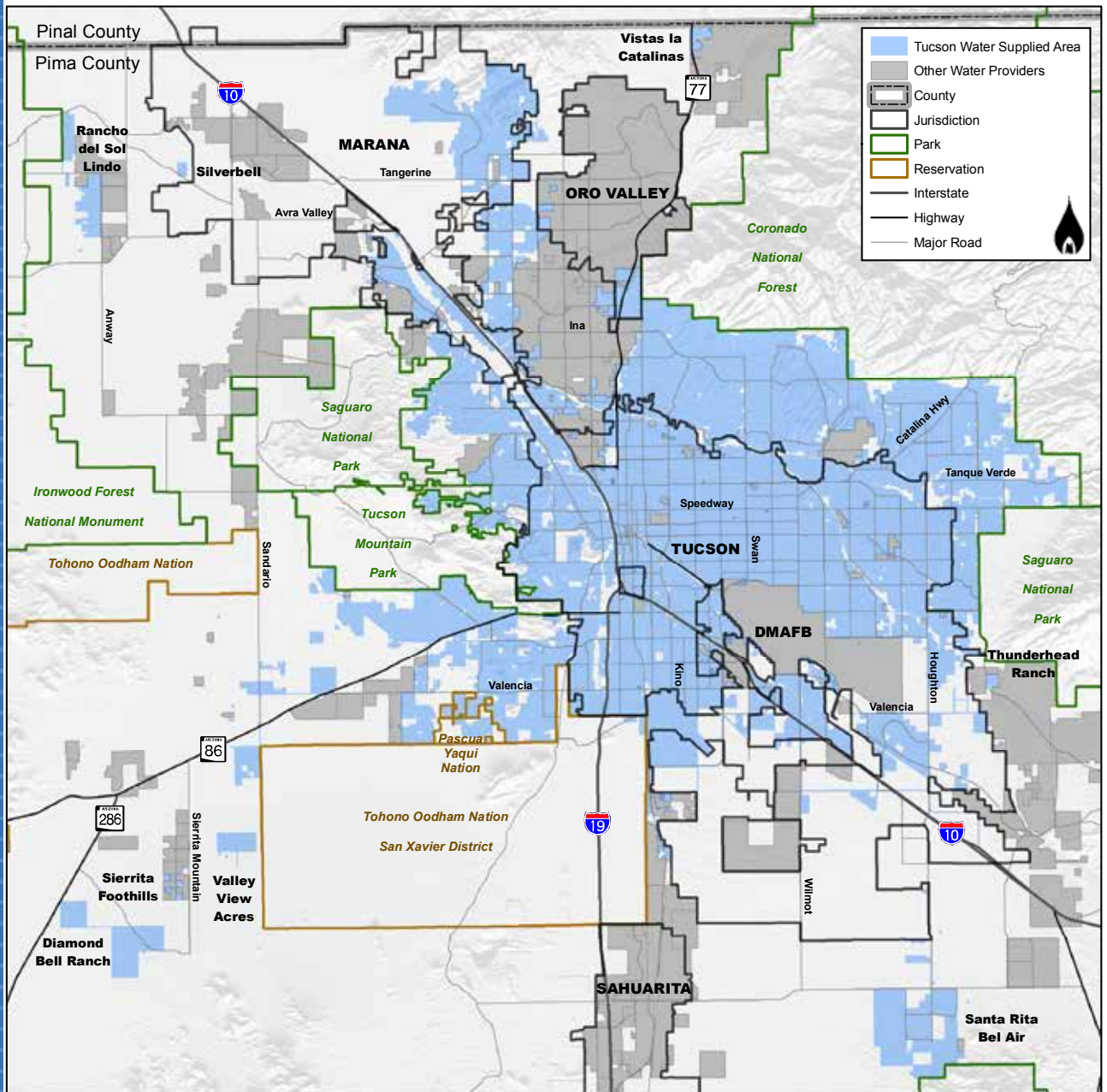
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WaterReliability

Ensuring Water Reliability ■ Today and in the Future

TUCSON WATER SERVICE AREA



Tucson Water 2020 Strategic Plan

TUCSON WATER

Tucson Water is the largest water utility in the Tucson area, serving more than 700,000 people with safe and reliable water service for over 100 years. Tucson Water's primary water sources are surface water from the Central Arizona Project (CAP), groundwater, and recycled water. Tucson Water is also committed to continuous improvements in water-use efficiency and conservation, which are cost-effective and energy-efficient ways of ensuring future water reliability for Tucson's businesses and residents.



PURPOSE OF THIS PLAN

Tucson Water is currently well-positioned to provide reliable services, meeting both regulatory and internal standards. However, the 2020 Strategic Plan is focused on the future, addressing the risks, needed investments, and opportunities likely to arise within the plan's five-year horizon. Specifically, this Strategic Plan is designed to meet the following objectives:

- Identify the Mission, Values and Standards of Tucson Water
- Ensure that the Mission, Values and Standards outlined in this plan are consistent with the voter-approved *Plan Tucson*, the *Water and Wastewater Infrastructure Supply and Planning Study (WISP)*, and other strategic plan objectives of the City of Tucson
- Increase confidence among the City of Tucson Mayor & Council, the Citizens' Water Advisory Committee (CWAC), and community leaders that Tucson Water is prepared to address our responsibilities, opportunities, and challenges today and into the future

NAVIGATING THIS PLAN

Strategic Foundation – Tucson Water's Mission and Behavioral Values define our fundamental roles in the community and the way we conduct business with our customers, the community, and the region.

Business Values – Tucson Water's Business Values describe in more specific terms our commitments to deliver compelling value. These values provide the framework and structure for Tucson Water's standards, the Strategic Plan, and for communicating in a meaningful way.

Standards – In order to provide compelling value, it is critical that Tucson Water develop and comply with standards. A standard is simply a rule, a level of quality, or an achievement that is considered acceptable or desirable. Tucson Water's standards drive our activities, decisions, and proposed investments. Some of these standards are legal or regulatory, such as complying with the Safe Drinking Water Act. Other standards are developed locally or internally by Tucson Water in collaboration with the Mayor and Council, CWAC, and our citizens.

Connections to *Plan Tucson*, *WISP* and other City of Tucson Strategic Plans – Both the voter-approved Tucson General Plan, Plan Tucson, and the City-County approved *Water-Wastewater Infrastructure Supply, & Planning Study (WISP)* outline goals and activities designed to ensure that Tucson residents enjoy a vibrant community and high quality of life. Most of these goals are consistent with Tucson Water’s Business Values, standards, and activities. For example, the *Plan Tucson* goal to “plan the City’s water supplies, water quality, and infrastructure for long-term reliability and efficiency,” virtually summarizes several of Tucson Water’s fundamental Business Values. Coordination with the City of Tucson’s Office of Integrated Planning (OIP), a division of the City Manager’s Office, will continue to assure Tucson Water that Tucson Water and the City of Tucson are consistent.

MISSION

We provide high-quality water and excellent service in a safe, reliable, efficient, and environmentally-sensitive manner.



BEHAVIORAL VALUES

We are guided in our daily decisions and activities by these values:

Integrity

We are open, honest, and ethical in all of our communications and actions.

Respect

We give thoughtful consideration to each other's differences and opinions.

Collaboration

We are committed to supportive teamwork in our effort to remain an employer of choice and a community partner.

Commitment

We give our individual best to get the job done right.

Responsibility

We are accountable for our behaviors, actions, and use of public resources.

Leadership

Leadership opportunities exist for every employee.



BUSINESS VALUES

Business Values describe Tucson Water's commitments to provide compelling value to the residents and businesses of Tucson. Tucson Water's Business Values establish a consistent framework for identifying issues, evaluating and implementing solutions, and providing context for the development of specific standards. These Business Values also enable Tucson Water to clearly and consistently categorize our activities and proposed investments in all communications. Tucson Water's commitments to provide value are the following:

Safe, High-Quality Water

Reliable Water Supplies

Reliable Water Services

Exceptional Customer Service

Sound Planning

Appropriate Investment

Sound Financial Management

Protecting the Environment

Increasing Efficiency and Conservation

Transparency and Communication

The following descriptions address the relevance of Tucson Water's Business Values and major standards.



Safe, High-Quality Water – Tucson Water’s commitment to protect the health of our customers begins with a conservative approach to water quality management and full compliance with the Safe Drinking Water Act (SDWA). This approach includes a commitment to maintain regulated contaminants of the SDWA at 75% or less of maximum allowable levels. A key to controlling water quality is knowledge, and Tucson Water collects comprehensive information on both source water quality and the quality of water within our distribution system. Tucson Water is also concerned about the aesthetics of our water, producing a monthly water aesthetics report and paying close attention to salinity levels and water clarity. Water

quality is also important for our recycled water program. Tucson Water’s recycled water meets or exceeds all applicable regulations and is graded A at this time for irrigation and other non-potable applications.



Reliable Water Supplies – A reliable water supply is fundamental to maintaining Tucson’s economy and overall quality of life. In general, the economic costs of a sustained water shortage far exceed the costs to prevent such shortages. Given this, Tucson Water’s supply planning is geared toward ensuring that the negative effects of a sustained water shortage are as limited as possible. Specifically, this means that Tucson’s water supply must be resilient to the impacts of systematic climate change, must include a diversity of water sources, and ultimately must be able to maintain Tucson’s 100-year assured water supply designation. Additionally, one of Tucson’s most valuable water assets is our groundwater basin. Ensuring water supply reliability means taking advantage of the groundwater basin’s

capacity to store large volumes of water. This is water that can be used when other supplies are short. Since 2012, Tucson Water has been purchasing our full allocation of CAP water, allowing us to store a portion of this water in the ground for future use.

Reliable Water Services – Investing in reliable water supplies must be complemented with highly reliable water pipes, pumps, boosters, valves, and treatment plants. Tucson Water’s standard is to provide uninterrupted water service to our customers. This is achieved by employing a comprehensive maintenance management system, collecting



real-time system information, and employing a data-driven maintenance approach. These systems help reduce and prevent failures and ensure that assets are repaired or replaced at the optimum time.

Exceptional Customer Service – Tucson Water’s commitment to service means: Make it easy for customers to pay their bills or get help when they have a problem, and ensure that every service interaction is a

positive experience. Meeting this commitment begins with accurate billing, 24/7 customer support, and a common-sense approach to meeting people’s needs and expectations. It also involves employing technology to make service more efficient without forcing automation on customers who would prefer interacting with a person.

Sound Planning – The ability of Tucson Water to provide value to our customers depends on the quality of our planning and our ability to secure investment in needed resources and infrastructure. To meet this commitment, Tucson Water must ensure that our proposals



for specific investments or rate adjustments are compelling, and that we secure the needed support from the Mayor and Council, CWAC, community leaders, and the public. Without these investments, Tucson is at risk for the degradation of water reliability and services.

Appropriate Investment – Tucson Water’s planning processes and our proposed investments are driven by Mayor and Council policies, CWAC recommendations, internal standards and regulations, and significant community engagement. They also employ a long-term view of water resources for both socio-economic and environmental needs. Tucson Water’s skills and experience will enhance our ability to plan well and identify future risks and opportunities.

Sound Financial Management – Protecting the economy and quality of life in Tucson requires a water utility that is financially strong and self-supporting. All of Tucson Water’s funding comes from water rates or other fees specifically allocated for the water system. Tucson Water’s finances need to be resilient to changes in the economy, the environment, and the demand for water. To meet these needs, Tucson Water maintains solid credit ratings and financial reserves. These help facilitate access to low-cost financing for capital improvements and reduced financial impact to our customers. In addition, Tucson Water is committed to establishing rates that cover the full cost of service, are fair and equitable, and are sensitive to the hardships of large or unexpected rate increases.

Protecting the Environment – Tucson Water recognizes that water originates from the natural environment and that there are environmental needs for water, including supporting natural vegetation and animal habitats. Tucson Water’s environmental commitment has influenced its reduction of groundwater pumping near sensitive riparian habitats, the creation of multiple benefit groundwater recharge facilities, our Avra Valley Habitat Conservation Plan, and our efforts to build facilities that complement existing community designs. In addition, efforts to reduce Tucson Water’s carbon footprint will yield environmental benefits in the future.



Increasing Efficiency & Conservation – Promoting a community ethic that supports the most efficient and conservative use of our water supplies has been—and will continue to be—a priority. Internally, Tucson Water employs a systematic, organization-wide process for identifying and pursuing increases in efficiency. This effort is supported by our comprehensive energy management program, SCADA master plan, maintenance management program, and efficiency-driven water well operations. Tucson Water tracks key efficiency metrics, including the number of staff members per 1,000 people served, and energy usage per 1,000 people served.

Transparency & Communication – Transparency is fundamental for maintaining and enhancing the confidence of our community. We must ensure that the public has easy access to important information. Also, we must share information that is meaningful to policy makers and the public. This includes information that describes why Tucson Water is taking action and why staff is proposing a specific investment or policy. Tucson Water’s other transparency commitments are evident in our regular interactions with our citizens’ representatives on CWAC, timely response to public records requests, and describing our policies, standards, and programs in all communications.



STANDARDS

The following table communicates some of the most important standards adopted by Tucson Water listed under their associated Business Value:

Safe, High-Quality Water Conservative Approach to Protect Public Health Comply with the Safe Drinking Water Act Comprehensive Source and System Water-Quality Info High Standards for Potable and Recycled Water	Appropriate Investment Rates Cover Full Cost of Service Appropriate CIP Funding to Ensure Reliability Explain Rationale for Investment Decisions Maintain Strong Credit Ratings
Reliable Water Supplies Maintain 100-Year Assured Water Supply Designation Maximum Utilization of CAP Water Allocation Diverse Water Supply Portfolio No Systemic Groundwater Mining	Sound Financial Management Tucson Water Financially Self Supporting Fair, Equitable, and Stable Rates Maintain AA Credit Rating and Low Cost of Debt Credit-Worthy Reserves, Cash, and Debt Ratios
Reliable Water Service Uninterrupted Water Service Real-Time, Comprehensive System Information Cost-Effective, Pro-Active System Maintenance Appropriately Trained Operations and Maintenance Staff	Protecting the Environment Balance Water for People and the Environment Habitat Restoration and Enhancement Environmentally & Community Sensitive Facilities Design Reduce Carbon Footprint
Exceptional Customer Service Accurate Water-Use Data and Accurate Bills 24/7 Customer and Emergency Support No Busy Signals Any Time of Day Resolve Problems with First Customer Interaction	Increasing Efficiency & Conservation Community-Wide Conservation Ethic Climate Change Resilient System & Supply Rate Structure Encourages Water-Use Efficiency Effective Conservation & Efficiency Programs
Sound Planning Standards-Driven, Data-Driven Planning & Decision Making Long-Range Water Planning through 2050 Anticipate Future Regulations, Evolving Standards Engage CWAC and Community in Planning Processes	Transparency & Communication Comply with Mayor & Council Policies Accurate, Publicly Accessible Data & Information Meet All Reporting Requirements Utilize Various Media for Timely Public Communications



LIST OF KEY POLICY ISSUES

The following Key Policy Issues describe the discussions and decisions likely to come before CWAC and City of Tucson Mayor & Council within the planning horizon of this 2020 Strategic Plan.

Key Policy Issue No. 1: Improve Customer Service



Applicable Business Values	<ul style="list-style-type: none"> • Exceptional Customer Service • Transparency & Communications
Most Relevant Standards	<ul style="list-style-type: none"> • 24/7 Customer and Emergency Support • No Busy Signals Any Time of Day • Resolve Problems with First Customer Interaction • Accurate Water Use Data and Accurate Bills
Background	Improved customer service will help ensure that Tucson Water is responsive to the needs of our ratepayers. In addition, trends and patterns in customer communications can assist in the identification of larger issues and provide opportunities for data-driven management. Also, providing exceptional customer service is a multi-faceted challenge where the performance in one area impacts performance in other areas. For example, the performance of online systems and automated phone support impact the call volume to Customer Service Representatives (CSRs) and therefore their ability to provide service to those with more complex or involved issues at a lower cost.
Challenge/Opportunity	<ul style="list-style-type: none"> • Enhance Automated Phone Service • Eliminate Gaps in 24-Hour Customer Service • Improve Retention and Training of CSRs
Solutions	<ul style="list-style-type: none"> • Upgrade phone system software to allow customers to pay their bills without an account number, and allow them to arrange for a bill extension. • Increase awareness and utilization of online services • Arrange for shorter maintenance times or create system redundancy to provide true 24-hour support • Provide additional technology and other support for CSRs
Timing Concerns	Customer Service has been identified as an area where there has been some recent improvement. At the same time, there is significant opportunity to expand the quality and quantity of our efforts in the next five years. Continued focus in the short term can help reduce CSR turnover and help Tucson Water improve external communication and fine tune internal processes.
Alternatives	1. No practical alternatives. Need to resolve these basic issues in order to plan future improvements.
Plan Tucson/WISP References	PI3: Expand the use of state-of-the-art, cost-effective technologies and services for public infrastructure and facilities

Costs: TBD

Key Policy Issue No. 2: Improve Water Infrastructure Reliability, Maintenance, and Efficiency



Applicable Business Values	<ul style="list-style-type: none"> • Reliable Water Supplies • Reliable Water Services • Sound Planning and Appropriate Investment • Increasing Efficiency & Conservation 	
Most Relevant Standards	<ul style="list-style-type: none"> • Uninterrupted Water Service • Real-Time Comprehensive System Information • Cost-Effective, Pro-Active System Maintenance • Appropriately Trained Operations & Maintenance Staff 	
Background	Tucson Water's commitment to providing reliable water service requires reliable water delivery infrastructure, which includes water mains, pipe, pumps, and valves. Managing the reliability and efficiency of these systems requires comprehensive system information and utilization of a Computerized Maintenance Management System (CMMS).	
Challenge/Opportunity	Current programs to improve system information and control (SCADA system) and expand Automated Meter Reading (AMR) will enhance the data available to the Tucson Water staff. These data will enable more consistent service reliability and pro-active maintenance and upgrade plans for older infrastructure. This will be especially important if data shows that older infrastructure is failing at a greater rate. In addition, increased costs of Colorado River water supplies due to drought-related conditions may increase budgetary pressures on maintaining and enhancing capital and maintenance budgets.	
Solutions	<ul style="list-style-type: none"> • Use enhanced data and leak detection systems to inform maintenance and upgrade activities, especially with respect to older infrastructure. Also, use data to identify opportunities to increase system efficiency and reduce water loss. Report significant opportunities to the CWAC and the Mayor and Council. • Complete Alternative Infrastructure Assessments to provide long-range guidance for future capital projects 	Costs: TBD
Timing Concerns	Timing is not extremely critical, but delaying action on maintenance and replacement of infrastructure may cause a spike in infrastructure failures which could cause a net increase in infrastructure costs.	
Alternatives	1. None. Leveraging current improvements in system automation and data collection will be occurring, so these data should be used to analyze and enhance system reliability. It would be inefficient not to take advantage of these data.	
Plan Tucson/WISP References	<p>WR1: Continue to plan and manage the City's water supplies, quality, and infrastructure for long-term reliability and efficiency</p> <p>Goal 22: Well-maintained public facilities and infrastructure that support coordinated cost-effective service delivery for current and future residents</p> <p>PI1: Invest in highest priority needs to manage and maintain public infrastructure and facilities that are fundamental to economic development and to sustaining and enhancing living conditions</p> <p>PI2: Prioritize major public infrastructure investments in developed areas and for improvements of the existing infrastructure</p>	

Key Policy Issue No. 3: Meet All Current and Future Water Quality Issues and Requirements



Applicable Business Values	<ul style="list-style-type: none"> • Safe, High-Quality Water • Sound Planning • Appropriate Investment 	
Most Relevant Standards	<ul style="list-style-type: none"> • Conservative Approach to Protecting Public Health • Comply with Safe Drinking Water Act • Comprehensive Source & System Water Quality Info • Standards-Driven, Data-Driven Planning & Decision Making • Anticipate Future Regulations, Evolving Standards 	
Background	Tucson Water's fundamental commitment to water quality begins with ensuring that the water delivered to customers meets requirements in the Safe Drinking Water Act. But managing water quality also means setting internal standards that meet customer needs and create confidence with respect to water quality.	
Challenge/Opportunity	Tucson Water needs to stay connected with the regulatory community and water industry activities in order to remain up-to-date on the latest water quality insights and regulatory trends. We need to participate in the development of new regulations and provide our expertise and judgment to water providers, research institutions, and regulatory agencies. Tucson Water also needs to continue to listen to community needs/desires on water quality aesthetics and issues.	
Solutions	<ul style="list-style-type: none"> • Maintain and enhance communication and interaction with relevant governmental and private industry stakeholders and update CWAC and Mayor and Council on any changes in water quality issues, customer desires, or changes in regulations. 	No additional costs at this time
Timing Concerns	Timing is critical only in the sense that this is an ongoing activity that must be continued.	
Alternatives	1. None.	
Plan Tucson/WISP References	WR1: Continue to plan and manage the City's water supplies, quality, and infrastructure for long-term reliability and efficiency	

Key Policy Issue No. 4: Support Economic Development-Related Water Infrastructure Needs

Applicable Business Values	<ul style="list-style-type: none"> • Sound Planning • Appropriate Investment • Sound Financial Management 	
Most Relevant Standards	<ul style="list-style-type: none"> • Standards-Driven, Data-Driven Planning & Decision Making • Long-Range Water Planning through 2050 • Appropriate CIP Funding to Ensure Reliability • Tucson Water Financially Self-Supporting • Fair, Equitable, and Stable Rates 	
Background	<p>New businesses, or the development of new business areas, sometimes require significant new water delivery infrastructure to be planned and installed. Without the infrastructure in place, new businesses face significant costs and/or delays in order to build the infrastructure required to begin operations. These costs and delays can deter or discourage economic development and job creation. At the same time, construction of new infrastructure prior to the identification of future users can mean the over/under estimation of required services and the need to secure funding for these projects from sources other than the ultimate beneficiary of these water services.</p>	
Challenge/Opportunity	<p>The costs and time required to provide this new infrastructure can be prohibitive, which can inhibit desirable economic development in Tucson. Tucson Water does not currently have any provisions for addressing these costs.</p>	
Solutions	<p>Collaborate with regional and local economic development partners, CWAC and ultimately with the Mayor and Council on addressing infrastructure development costs and process for supporting desirable economic development.</p>	<p>Costs depend upon the number and scope of approved advance infrastructure investments</p>
Timing Concerns	<p>Timing is not critical but relevant. Failure to act could continue to negatively affect economic development.</p>	
Alternatives	<p>1. None. This dialogue should occur independent of eventual policy decisions.</p>	
Plan Tucson/WISP References	<p>Goal 9: An economy that supports existing businesses and attracts new businesses to increase employment opportunities, raise income levels, expand the tax base, and generate public and private investment leading to a high quality of life for the community</p>	



Key Policy Issue No. 5: Strengthen Both the Water Supply Sustainability and the Financial Stability of Tucson Water



Applicable Business Values	<ul style="list-style-type: none"> • Sound Financial Management • Appropriate Investment • Increasing Efficiency & Conservation • Sound Planning • Protecting the Environment • Transparency & Communications
Most Relevant Standards	<ul style="list-style-type: none"> • Community-wide Conservation Ethic • Effective Conservation & Efficiency Programs • Balance Water for People and the Environment, Habitat Restoration and Enhancement • Fair, Equitable, and Stable Rates • Climate Change Resilient Supply • Tucson Water Financially Self-Supporting • Rate Structure Encourages Water-Use Efficiency • Anticipate Future Regulations, Evolving Standards • Standards-Driven, Data-Driven Planning & Decision Making
Background	<p>Tucson Water's services are essential to supporting Tucson's economy and quality of life. This requires an integrated approach to ensuring sufficient water supplies for both economic and environmental uses, encouraging conservation and maximum efficiency for all uses, and maintaining a fair and affordable rate structure that supports these uses. Increased conservation programs and funding provide new opportunities to protect water supplies; however, their successes contribute to reduced revenues and increased ratepayer support for conservation programs. From a financial perspective, Tucson Water needs to be operationally and financially strong in order to meet significant annual fixed costs not directly tied to fluctuations in water demand. The utility needs to be specifically resilient to variability in the economy, environmental conditions, or operating conditions that can significantly change revenues from water sales.</p>
Challenge/Opportunity	<p>It is only marginally effective to address issues separately that are interlinked. Specifically, Tucson Water is facing the following challenges simultaneously:</p> <ul style="list-style-type: none"> • Ensuring sufficient long-term water supplies • Identifying and supporting effective and affordable water conservation programs • Supporting community desires for the increased use of water for environmental and other quality-of-life goals (for example, increased tree canopy, local food production, habitat enhancement and restoration) • Increasing revenue stability, covering fixed costs, and funding new programs in a way that is palatable and fair to rate payers and sensitive to the needs of low-income customers
Solutions	<p>Work with community leaders and stakeholders on developing effective, data-driven strategies that balance water supply and financial sustainability in a fair and affordable manner. Stakeholders include:</p> <ul style="list-style-type: none"> • Mayor & Council • CWAC • Environmental Research and Advocacy Groups • Business Groups • Low-income Assistance & Support Organizations <p>No budgetary impact, but may ultimately create an impact on rate structures and minimum monthly bills</p>

Key Policy Issue No. 5: Strengthen Both the Water Supply Sustainability and the Financial Stability of Tucson Water *(Continued)*

Timing Concerns	Tucson has been dealing with these issues in a disconnected way, which is inefficient and may not yield the most effective solutions or the best value for Tucson and Tucson Water customers.
Alternatives	1. None.
Plan Tucson/ WISP References	<p>WR1: Continue to plan and manage the City's water supplies, quality, and infrastructure for long-term reliability and efficiency</p> <p>WR2: Expand the use of alternative sources of water for potable and non-potable uses, including rainwater, gray water, reclaimed water effluent, and stormwater</p> <p>WR3: Expand effective water efficiency and conservation programs for City operations and for the residential, commercial, and industrial sectors</p> <p>WR 6: Integrate land use and water resources planning</p> <p>P14: Identify reclaimed water users such as schools, golf courses, and sports facilities, that will support the expansion of the reclaimed water system</p>



TUCSON WATER FACTS

- \$1 billion in infrastructure investment
- 225,000 active customer connections
- 390 square mile service area
- 4,618 miles of drinking water mains
- 56 reservoirs and drinking water storage facilities
- 14,500 water quality tests each year on the main water distribution system
- 944 reclaimed water customers
- 9 reclaimed water storage facilities





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